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(54) Title: AUTOMATIC SIGNATURE-BASED SPOTTING, LEARNING AND EXTRACTING OF COMMERCIALS AND OTHER VIDEO CONTENT

(57) Abstract: A video signal is processed to identify segments that are likely to be associated with a commercial or other particular type of video content. A signature is extracted from each of the segments so identified, and the extracted signatures are used, possibly in conjunction with additional temporal and contextual information, to determine which of the identified segments are in fact associated with the particular video content. One or more of the extracted signatures may be, e.g., a visual frame signature based at least in part on a visual characteristic of a frame of the video segment, as determined using information based on DC and motion coefficients of the frame, or DC and AC coefficients of the frame. A given extracted signature may alternatively be an audio signature based at least in part on a characteristic of an audio signal associated with a portion of the video segment. Other types of signatures can also be used. Advantageously, the invention allows the identification and extraction of particular video content to be implemented with significantly reduced amounts of memory and computational resources.